EMSL/RTP-SOP-QAD-522
March 16, 1981
Revision No. 0

DETERMINATION OF ORGANIC CONTENT OF GLASS FIBER FILTERS

1. Label an appropriate number of crucibles (50 ml capacity) and covers.
2. Heat crucibles and covers in a muffle furnace for 1 hour at 400°C.
3. Place the cover on the crucible, remove from the oven, and cool.
4. After the crucible has cooled sufficiently, place in a desiccator overnight (16 hours). The cover should be adjar to allow any moisture in the crucible to escape.
5. Replace the cover on the crucible, and weigh crucible, and cover to the nearest 0.001 mg, and record in a notebook.
6. Repeat steps 2 through 5 four more times or until successive weighings agree to within 0.2 mg.
7. Average the last 2 crucible weights, and record as We.
8. Cut a 4" x 4" (103.23 CM^2) square from each filter to be tested.
9. Fold, put in a conditioned crucible, and place crucible, cover, and filter in a desiccator overnight (16 hours). Cover is adjar to allow moisture to escape from the filter.
10. Weigh crucible, cover, and contents on three successive days or until successive weighings agree to within 0.2 mg. Replace crucible with filter in the desiccator between weighings.
11. Average the last 2 weighings, and record as Wi.
12. Place crucible containing the filter in a muffle furnace for 1 hour at 400°C. Cover should be adjar to allow moisture to escape while crucible is in the oven.
13. Put cover on the crucible, cool, and place in a desiccator overnight (16 hours). Cover should be adjar to allow moisture to escape while crucible is in the desiccator.
14. Replace the cover, and weigh crucible, cover, and filter residue, and record weight in a notebook.
15. Repeat steps 12 through 14 four more times or until successive weighings agree to within 0.2 mg.
16. Average last two weighings, and record as Wf.
17. Calculate the percent weight loss as follows:

$$\% \text{ Wt. loss} = \frac{Wi - Wf}{Wi - We} \times 100$$